

# TRENDS

## IN MARITIME HIGHER EDUCATION

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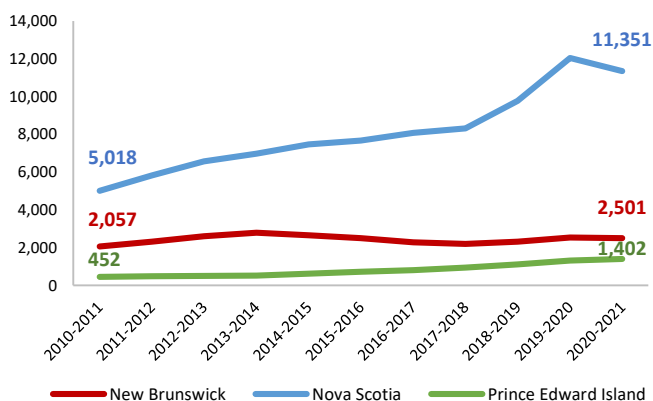
### International Students in Maritime Universities 2010-2011 to 2020-2021

**International enrolment in Maritime universities more than doubled over ten years.**

Between 2010-2011 and 2020-2021, international enrolment increased by 103%, from 7,527 to 15,254. International enrolment increased each year between 2010-2011 and 2019-2020, but decreased by 4% in 2020-2021, likely due to travel restrictions related to the COVID-19 pandemic. Preliminary 2021-2022 numbers show a recovery in international enrolment in the region<sup>1</sup>.

Enrolment of international students over the last ten years increased by 22% in New Brunswick (NB), 126% in Nova Scotia (NS) and 210% in Prince Edward Island (PEI) (Figure 1).

*Figure 1: International enrolment in Maritime universities by province of study, 2010-2011 to 2020-2021.*



International enrolment accounted for 22% of Maritime university enrolment in 2020-2021, compared to 11% ten years earlier. In 2020-2021, international enrolment accounted for 13% of university enrolment in NB, 24% in NS, and 28% in PEI.

**International enrolment accounted for a larger share of graduate enrolment.**

Both undergraduate and graduate international enrolment increased over ten years (+104% and +95%, respectively). International students made up one in five (21%) of overall undergraduate enrolment and one in four (26%) of overall graduate enrolment in 2020-2021.

**In 2020-2021, 57% of international students were men and 43% were women.**

In contrast, women represented 63% of Canadian enrolment in Maritime universities. During the last decade, the number of international female students has grown faster than male students (+108% compared to +92%). In 2020-2021, women represented 50% of all international enrolment in PEI, while they accounted for a smaller share of enrolment in NB and NS (both at 43%).

**Business, management and public administration programs attracted the highest number of international students in all three provinces.**

In 2020-2021, Business, management and public administration was the top field of study grouping, accounting for one-third (34%) of total international enrolment in the region. Architecture, engineering and related fields and Mathematics, computer and information science were the second and the third most popular field of study groups among international students in NB and NS. Social and behavioral sciences and Health and related fields were other popular fields of study among international students in PEI (Table 1).

*Table 1: Distribution of international enrolment in Maritime universities by province of study and field of study, 2020-2021.*

Field of study	NB	NS	PEI	Maritimes
Business, management and public administration	28%	37%	29%	34%
Architecture, engineering and related technologies	17%	15%	6%	15%
Mathematics, computer and information science	12%	14%	14%	13%
Physical and life sciences	9%	10%	13%	10%
Social and behavioral sciences	11%	7%	15%	8%
Health and related fields	4%	7%	14%	7%
Humanities	10%	4%	3%	5%
Agriculture, natural resources and conservation	3%	2%	2%	2%
Other	5%	1%	0%	2%
Education	1%	1%	4%	1%
Visual and performing art	1%	2%	0%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## International Students in Maritime Universities 2010-2011 to 2020-2021

### China and India accounted for more than half (51%) of all international enrolment in 2020-2021.

International students come from over 160 countries to study at Maritime universities. While China has remained the top country of origin for international students over the last ten years, most of the gains in enrolment of international students in recent years are a result of the growing number of students from India which has increased twelvefold from 288 in 2010-2011 to 3,755 in 2020-2021. This represents a quarter of all international enrolment in Maritime universities (Table 2).

*Table 2: Top ten countries of origin for international students in Maritime universities, 2010-2011 and 2020-2021.*

Enrolment (Share of total international enrolment)			
Country	2010-2011	Country	2020-2021
China*	2,344 (31%)	China*	4,084 (27%)
Saudi Arabia	645 (9%)	India	3,755 (25%)
United States	554 (7%)	United States	612 (4%)
India	288 (4%)	Nigeria	533 (3%)
Bermuda	165 (2%)	Bahamas	472 (3%)
Bahamas	162 (2%)	Bangladesh	393 (3%)
Nigeria	126 (2%)	Viet Nam	383 (3%)
Germany	119 (2%)	Iran	284 (2%)
South Korea	110 (1%)	DR Congo**	178 (1%)
Iran	108 (1%)	Egypt	167 (1%)

\* China excludes Hong Kong and Macao \*\* Democratic Republic of Congo

Breakdown of enrolment by province of study: [Table 6: Enrolment of International Students by Province of Study and Country of Citizenship](#)

The proportion of students from Asia increased from 56% to 67% over ten years. They represented the largest share of international students in all three provinces in 2020-2021 (41% in NB, 76% in NS, and 47% in PEI). African students represented the second largest share of international students in NB (40%), NS (9%), and PEI (30%).

### In 2020, more than one-third of all graduate degrees were granted to international students.

The number of credentials granted to international students increased by 188% over ten years, from 1,384 in 2010 to 3,990 in 2020 (Table 3). Since 2010, the number of credentials granted to international students increased by 49% in NB, 238% in NS and 324% in PEI. International students accounted for 24% of all credentials granted by Maritime universities in 2020, compared to 9% ten years earlier.

In 2010, 8% of all undergraduate degrees were granted to international students. This percentage increased to 21% in 2020. The number of master's and doctoral degrees granted to international students increased from 15% to 35% and from 10% to 36% over ten years, respectively.

*Table 3: Credentials granted by Maritime universities to international students by credential type, 2010 and 2020.*

Credential type	Credentials granted to international students (Share of total credentials granted)	
	2010	2020
College certificate/diploma	4 (5%)	12 (11%)
Undergraduate certificate/diploma	99 (11%)	341 (32%)
Undergraduate degree	883 (8%)	2,431 (21%)
Graduate certificate/diploma	8 (17%)	1 (2%)
Masters	372 (15%)	1,137 (35%)
Doctorate	18 (10%)	68 (36%)
<b>All credentials combined</b>	<b>1,384 (9%)</b>	<b>3,990 (24%)</b>

### 63% of international graduates remained in the Maritimes two years after graduation.

341 international graduates who completed a bachelor's degree at a Maritime university in 2018 were surveyed in fall 2020. 63% of them were living in the Maritimes at the time of the survey, 19% were living in the rest of Canada, and 17% were living outside of Canada.

### International graduates contribute to Canada's labour market after graduating from a Maritime university.

81% of international graduates who earned their first degree from a Maritime university (first-degree holders) and who were living in Canada at the time of survey were employed two years after graduation. Of employed graduates, 87% were working full-time and 55% were employed in a job that requires a university education or is a management position. Two years after graduation, Class of 2018 international graduates were earning a median annual income of \$42,492, while those working full-time were earning \$44,938 (Table 4). There was no significant difference in employment outcome measures between international and Canadian graduates.

## International Students in Maritime Universities 2010-2011 to 2020-2021

Table 4: Employment outcomes of the Class of 2018 bachelor graduates\* two years after graduation by status in Canada.

Employment measures	Status in Canada	
	International (n=175)	Canadian (n=1,852)
% Employed	81%	87%
% Full-time, among those employed	87%	80%
Job requires university education or is a management position	55%	61%
Earnings (Median) **	\$42,492	\$46,800
Full-time earnings (Median) **	\$44,938	\$51,000

\* Among those first-degree holders in the labour market who were living in Canada at the time of the survey.

\*\* In constant 2020 dollars.

## Summary and implications

The student population in Maritime universities has gone through a substantial shift over the last ten years: the number of students originally from the Maritimes decreased by 14%, the number of Canadian students from outside the Maritimes remained relatively stable (-1%), and the number of international students increased by 103%. A shift in the typical university-aged population partly explains the decrease in the number of local students. The population of 18-24 year-olds decreased by 4% in the Maritimes over the last decade<sup>2</sup>. In 2020-2021, international students accounted for one in five of total university enrolment, compared to one in ten in 2010-2011. Over the past decade, enrolment growth in most fields of study was driven by international enrolment. The largest growth in international enrolment has taken place in Mathematics, computer and information science increasing 374% from 431 to 2,043. From 2010-2011 to 2020-2021, the number of international students enrolled in Business, management and public administration programs increased by 78%, while the number of Canadian students in these programs decreased by 8%.

The increase in international university enrolment in the Maritimes are due to a variety of factors, including programs and policies put in place by provincial governments, the quality of post-secondary education, the pathways to permanent residency, and affordable tuition<sup>3</sup> and living costs<sup>4</sup>. According to a report released by the Council of Atlantic Ministers of Education and Training (CAMET), international students contributed \$432 million to the Gross Domestic Product (GDP) of Maritime provinces, supported 5,953 full-time equivalent jobs and contributed \$19 million in taxes in 2017<sup>5</sup>. In addition, international students add diversity to the region's educational institutions and the Maritime society in general, and creates and fosters relationships between the Maritime region and the rest of the world.

## Definitions

**International student/graduate:** Student or graduate from a Maritime university who is not a Canadian citizen or a permanent resident at the time of enrolment or graduation. Students and graduates from an offshore campus are excluded.

**Country of origin:** Country of citizenship of persons who are not Canadian citizens or permanent residents.

**Field of study:** Statistics Canada's Classification of Instructional Programs (CIP) 2016 primary groupings.

## Data sources

**Enrolment and credentials granted:** MPHEC Post-Secondary Student Information System (PSIS).

**Retention and employment of graduates:** MPHEC Graduate Outcomes (GO) Survey of the Class of 2018 Maritime university graduates in 2020. The total sample for international graduates is 341 and international first-degree holders is 231, with a margin of error of  $\pm 4.6$  percentage points. The results in this report are not comparable to other MPHEC GO Survey publications. In this report, the classification of students/graduates as international and Canadian was based on their legal status in Canada and not their place of residence 12 months before enrolling in their program, as in the case in other MPHEC reports.

## International Students in Maritime Universities 2010-2011 to 2020-2021

### References

1. Association of Atlantic Universities. 2021-2022 preliminary survey of enrolments (October 1, 2021). [https://www.atlanticuniversities.ca/wp-content/uploads/2021/12/PreliminaryEnrolments\\_21-22\\_Oct1521\\_VFYT.pdf](https://www.atlanticuniversities.ca/wp-content/uploads/2021/12/PreliminaryEnrolments_21-22_Oct1521_VFYT.pdf)
2. Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex. <https://doi.org/10.25318/1710000501-eng>
3. Statistics Canada. Table 37-10-0045-01 Canadian and international tuition fees by level of study (current dollars). <https://doi.org/10.25318/3710004501-eng>
4. Statistics Canada. Table 11-10-0222-01 Household spending, Canada, regions and provinces. <https://doi.org/10.25318/1110022201-eng>
5. Council of Atlantic Ministers of Education and Training. 2018. The economic impact of international students in Atlantic Canada. [https://immediac.blob.core.windows.net/camet-camef/images/2018-02-20\\_EconomicImpactofInternationalStudents-WEB.PDF](https://immediac.blob.core.windows.net/camet-camef/images/2018-02-20_EconomicImpactofInternationalStudents-WEB.PDF)

### Additional Resources

#### Enrolment:

- Table 5: Enrolment of International Students by Province, Institution, and Registration Status as Percentage of Total Enrolments
- Table 6: Enrolment of International Students by Province of Study and Country of Citizenship
- Table 8: Total Enrolment in Science, Technology, Engineering and Mathematics (STEM) Disciplines by Province of Study and Student Origin
- Table 9: Total Enrolment by Province of Study, Immigration Status, Province of Residence and Level of Study

#### Annual Digest: University Enrolment

#### Open data: Downloadable databases and interactive graphs on enrolment and credentials granted

#### Credentials granted:

- Table 17: Undergraduate Degrees Granted by Province of Study, Major Field of Study, Immigration Status and Province of Residence
- Table 18: Graduate Degrees Granted by Province of Study, Major Field of Study, Immigration Status and Province of Residence

#### A breakdown of tuition fees by status of student in Canada, level of study and institution:

- Table A: Undergraduate Arts and Sciences Full-time Tuition Fees and Provincial Tuition Rebates/Bursaries
- Table B: Graduate Arts and Sciences Full-time Tuition Fees and Provincial Tuition Rebates/Bursaries

#### Changes in the rank of the top ten countries of citizenship of international enrolments in Maritime universities, 2010-2011 to 2020-2021

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